FISH INSPIRED ROBOTS

Biomimicry

Labeled diagram of robotic fish: Caudal fin, Servo motors, Dorsal fin, WiFi module, Antenna, Compass, Accelerometer and Gyroscope, Ballast tank, IR Sensors, Pectoral fin, Diving pump, Pelvic fin, Battery, Electronics and control, Anal fin
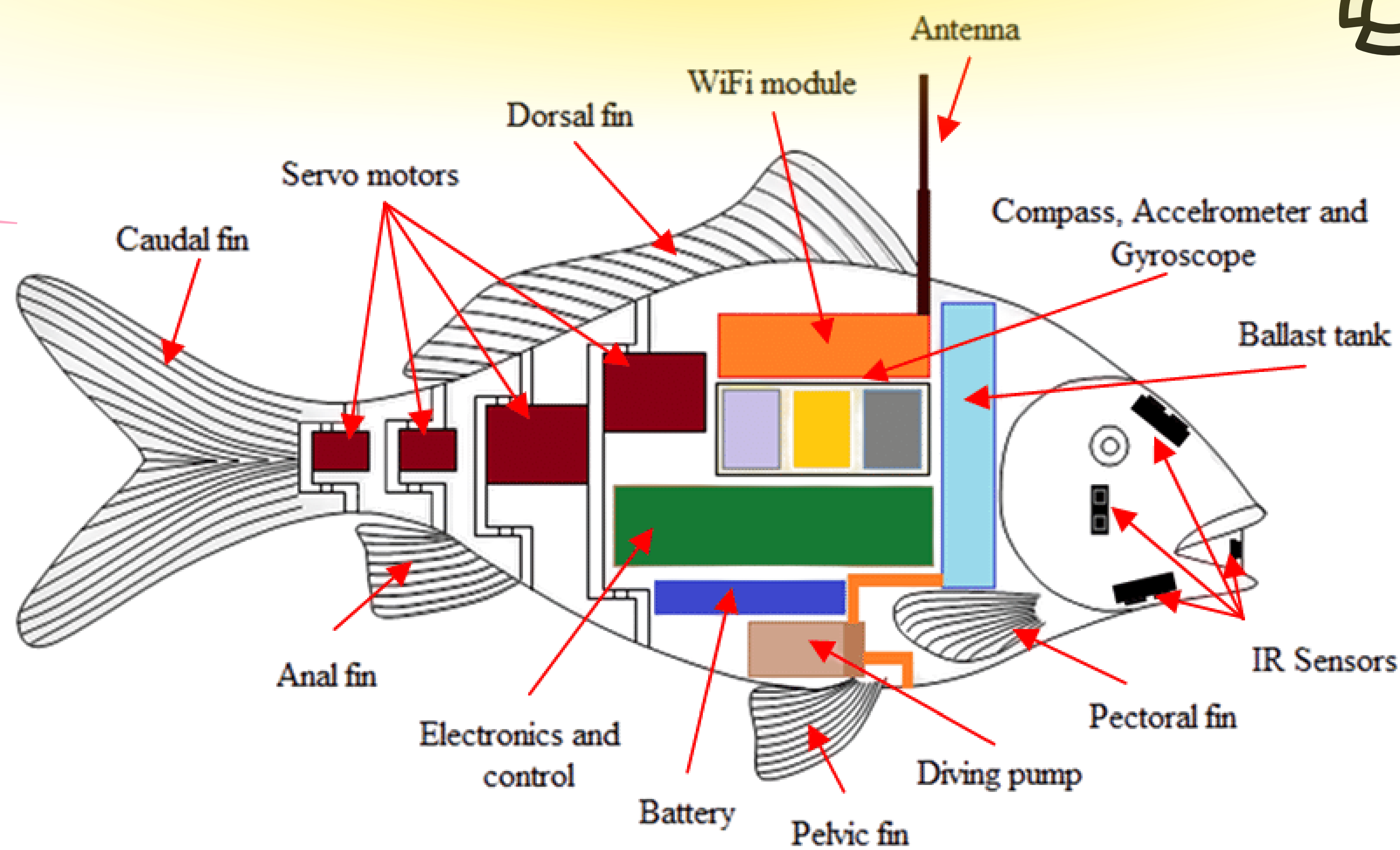
Gilbert

Designed by: University of Surrey, England

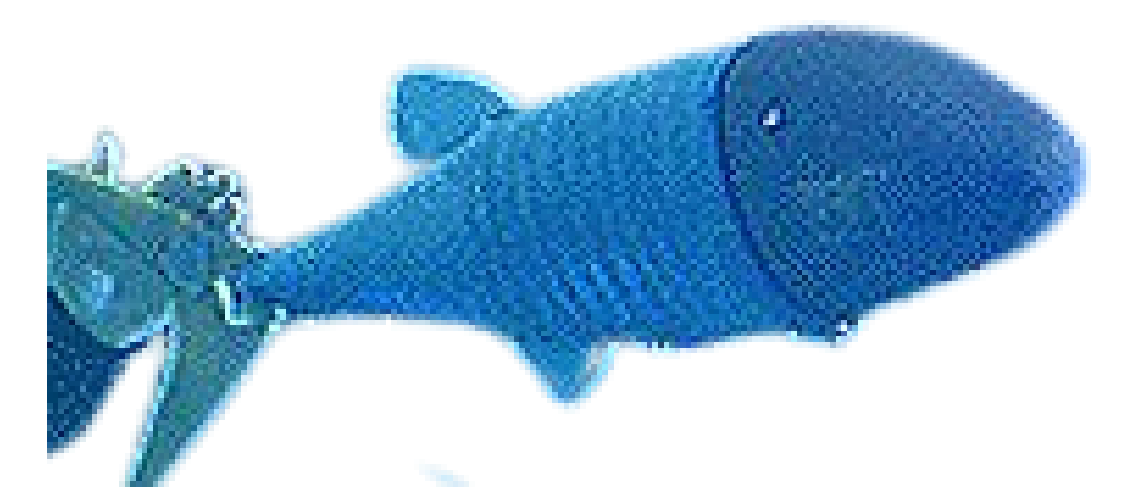Applications: Vacuums microplastics from waterways

SoFi

Designed by: Massachusetts Institute of Technology (MIT), USA

Applications: Exploration of underwater life

Mantadroid

Designed by: National University of Singapore:, Singapore

Applications: Underwater surveillance and marine biodiversity studies

Robopike

Designed by: MIT, U.S.A.

Applications: Used as part of research into the mechanics of fish swimming actions
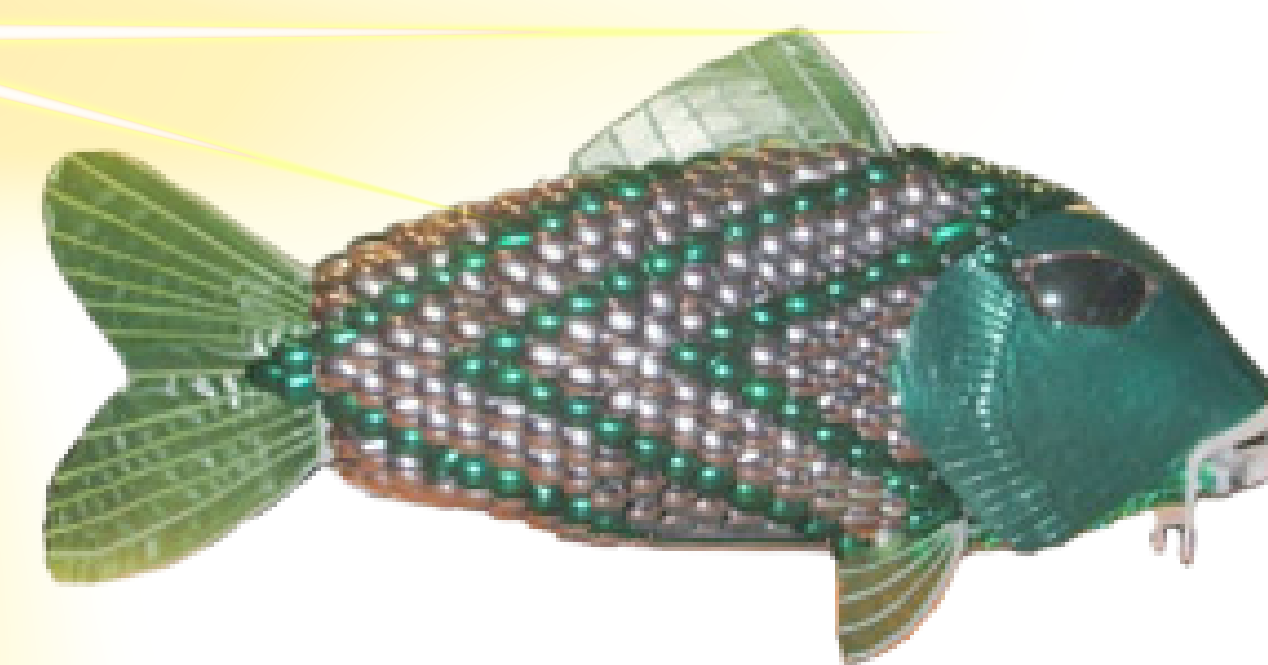
Robotic Koi

Designed by: Ryomei Engineering, Japan

Application: Make water quality inspections

Robot Poisson SPC-03

Designed by the Chinese Academy of Sciences, China

Application: Underwater exploration and photography, and the transport of small objects

G8 Fish

Designed by: University of Essex, England

Applications: Detect water pollution

Robot Jellyfish

Designed by: Florida Atlantic University, US and the U.S. Office of Naval Research scientists

Applications: Studying coral reefs

AgnathaX

Designed by: Biorobotics Laboratory in Ecole Polytechnique Federale de Lausanne (EPFL), Switzerland

Applications: Can sense the forces from the water

RoboTuna

Desugned by: MIT, USA

Applications: To investigate the possibility of finding a superior system of propulsion for the Autonomous Underwater Vehicles (AUVs)

iSplash-II

Designed by:Essex University, England.

Applications: Possibility of developing high speed AUVs

Source: ChatGPT, Canva

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